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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,926	11/21/2003	Tamio Noguchi	MERCK-2801	7555
23599	7590	06/14/2005	EXAMINER	
MILLEN, WHITE, ZELANO & BRANIGAN, P.C. 2200 CLARENDON BLVD. SUITE 1400 ARLINGTON, VA 22201			LE, HOA T	
			ART UNIT	PAPER NUMBER
			1773	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,926

Applicant(s)

NOGUCHI, TAMIO

Examiner

H. T. Le

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 10-13, 20 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 14, 21, 22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8, 14-19, 21, 22 and 24-26, drawn to a pigment and pigment-containing product, classified in class 428, subclass 403.
 - II. Claims 10-13, 20 and 23, drawn to a method of making a pigment, classified in class 428, subclass 212.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another materially different process such as fluidized bed coating.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

3. During a telephone conversation with Applicants' Representative, Mr. Csaba Henter, on March 14, 2005, a provisional election was made with traverse to prosecute the invention of group I, claims 1-8, 14-19, 21, 22 and 24-26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-13, 20 and 23 are withdrawn from

further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

5. Claim 14 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 depends on a withdrawn claim 10. It must be amended to an independent form.

Claim 19 is indefinite because "water-soluble nitrogen compound" lacks antecedent basis.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has

fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-4, 6-9, 14-18, 21, 22, 24 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by the Schmidt patent (US 6,596,070).

Claim 1: See col. 3, lines 40-62 and col. 4, lines 4-8. Coating layers (A) and (C) comprise the same metal oxides as claimed.

Claims 2-3, 21, 22, 24 and 25: See col. 4, lines 8-25. Note also that at col. 4, lines 18-11, it is states that the layer arrangement as disclosed can be repeated up to 4 times.

Claim 4: See col. 5, lines 4-8 where alkali metal hydroxide solution is taught in forming the coating layer. Thus, it suggest that alkali metal is present in the metal oxide coating.

Claims 6-8: The specific surface area and pore amount as claimed are considered met by inherence because the pigment powders disclosed in these patents exhibit the same particle size and comprise the same composition as claimed.

Claims 9 and 15-18: See col. 2, line 52 to col. 3, line 3.

Claim 14: This is a product-by-process claim. All product limitations are met as discussed in the rejection to claim 1.

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8. Claims 1-3, 6-9, 14-18, 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by the Bauer patent (US 6,630,018).

Claim 1: See col. 3, lines 18-26 and col. 6, lines 10-17 and 59-67.

Claims 2-3, 21 and 22: See col. 9, lines 37-39 where an inner coating of tin oxide is suggested. See also, examples 5-7, where particles with an inner coating of tin oxide and an outer coating of titanium dioxide are taught.

Claims 6-8: The specific surface area and pore amount as claimed are considered met by inherence because the pigment powders disclosed in these patents exhibit the same particle size and comprise the same composition as claimed.

Claims 9 and 15-18: See col. 3, lines 53-65.

Claim 14: This is a product-by-process claim. All product limitations are met as discussed in the rejection to claim 1.

9. Claims 1, 6-9, and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by the commercial pigments named "Cloisonne Regal Gold" and "Flamenco Twilight Gold" made by the Mearl Corporation.¹

Claims 1, 9, 15-18: Two brochures of the Mearl Corporation describe Cloisonne Regal Gold and Flamenco Twilight Gold as pigment powders comprising mica platelet substrate coated with titanium dioxide and iron oxide. The particle size of the platelet substrate is between 6-48 μ m.

¹ The specifications of these products have been submitted by a third party.

Claims 6-8: The specific surface area and pore amount as claimed are considered met by inference because the pigment powders disclosed in these brochures exhibit the same particle size as the claimed pigment and the same coating material.

Claim 14: This is a product-by-process claim. All product limitations are met as discussed in the rejection to claim 1.

10. Claims 1, 6-9, and 14-18 are rejected under 35 U.S.C. 102(b) as being anticipated by the patents Linton and Nitta (US 3,087,828 and US 5,223,034).²

Claims 1 and 15: Both the patents Linton and Nitta disclose a pigment comprising a platelet substrate coated with at least two layers of metal oxide. See Linton, col. 2, lines 43-50 and col. 5, lines 18-23; col. 6, lines 36-62. See Nitta, col. 2, lines 19-38; and col. 3, lines 22-35.

Claims 6-8: The specific surface area and pore amount as claimed are considered met by inference because the pigment powders disclosed in these patents exhibit the same particle size and comprise the same composition as claimed.

Claims 9 and 16-18: See Linton, col. 4, lines 26-36. See Nitta, col. 3, lines 23-43.

Claim 14: This is a product-by-process claim. All product limitations as claimed are met as discussed in the rejection to claim 1 above.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

² The copies of these references have been submitted by a third party.

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 4, 5 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the all the patents discussed above as applied to claim 1, and further in view of the Franz '793 patent (US 4,867,793).

Claims 4-5: All aforementioned patents each teach the claimed invention as discussed above. However, magnesium-containing oxide layer is not explicitly taught. The Franz '793 patent teaches that "magnesium oxide or tin dioxide, each of which can be applied by itself or as a mixture, are advantageously used" (see the Franz '793 patent col. 4, lines 64-68). Therefore, it would have been obvious to incorporate magnesium oxide into the coating metal oxide coating layer as taught by Schmidt or Bauer to further improve the nacreous/illuminating properties of the pigment.

Claim 26: See Franz '793, col. 4, lines 60-63. In addition, it has been known in the art that sintering further improves the reflectivity of a pigment. Therefore, it would have been obvious to sinter the pigments in order to enhance their reflectivity.

13. Claims 21, 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Schmidt or Bauer patents (US 5,96,070 and US 6,630,018) as applied to claims 1 and 3 above, and further in view of the Franz patent (US 4,867,793).

The Schmidt and Bauer patents each teach the claimed invention as discussed above. Though the sequence of metal oxide layers as specified is not explicitly reported in these patents, it would have been obvious for one having ordinary in the art to arrive a multiplayer

coating system having the same sequence as claimed through routine experimentation depending on the desired effects or hues for the pigment.

14. References not relied upon are cited as art of interest.
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to H. T. Le whose telephone number is 571-272-1511. The examiner can normally be reached on 10:00 a.m. to 6:30 p.m., Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



H. T. Le
Primary Examiner
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